

## Protocol amendments

The original version of this proposal (dated 11 January 2017) was amended in July 2017. The following changes were made:

### Page 3 - Trial registration

The trial is now registered with ISRCTN and the unique identifier is ISRCTN64960433.

### Page 3 - Allocation

Settings will be allocated to treatment or control within regions. The precise area covered within a region will be determined by Peeple and will facilitate the organisation of training for the intervention schools (to minimise travel for school staff who will be delivering the programme). There will be between 5 and 6 regions.

### Page 4 - Final selection of the post-test language measure

It was originally proposed that one of three language measures would be selected to measure post-test language ability:

1. Renfrew Action Picture Test (RAPT)
2. British Picture Vocabulary Scale (BPVS)
3. Clinical Evaluation of Language Fundamentals (CELF), Preschool 2

On the basis of a pilot study conducted by the research team and in discussion with Peeple and the EEF, it was agreed that the core language score of the CELF would be used as the primary outcome measure for this study. The core language score is made up of three subscales: sentence structure, word structure and expressive vocabulary. **The CELF offers a more comprehensive measure of overall language ability compared to both the BPVS and the RAPT. In addition, the scoring of the CELF is more standardised and straightforward than the RAPT, which in turn will facilitate greater inter-rater reliability between members of the fieldwork team.**

The primary analysis will use a combined single language score derived from the CELF (consisting of all three subscales) as the outcome variable. Secondary analysis will explore the impact of the programme on each of the three CELF subscales.

### Page 4 - Designation of primary and secondary outcomes

It was originally proposed that language and early literacy would be co-primary outcomes. However, it was decided that language should be the sole primary outcome as measured by the CELF. **The reason for this is that language development (compared to emerging literacy, whilst also extremely important) is an outcome more closely aligned to programme content and the CELF is a sensitive measure that is likely to capture any changes in the sample on this outcome.**

Secondary outcomes remain unchanged and include:

- Early literacy (measured by Concepts About Print and previously a co-primary outcome)

- Social communication (measured by the Ages and Stages Questionnaire)
- Social and emotional development (measured by the Ages and Stages Questionnaire and the Brief Early Years Skills and Support Index)
- Quality of the home learning environment (measured by the Home Learning Environment scale)
- Parenting skills (measured by the Tool to Measure Parent Self Efficacy TOPSE)

## Evaluation Summary

Age range	3-4 years old
Number of pupils	Approximately 1500
Number of schools	Approximately 150
Design	Cluster randomised controlled trial
Primary Outcome	Communication, language and early literacy

## Intervention

The charity Peep (previously known as the Parents Early Education Partnership) was established in 1995 to help parents and carers to make the most of everyday learning opportunities with their children.

The Peep Learning Together Programme (LTP) is the result of 20 years of research, practice and reflection. It is based on the Opportunities, Recognition, Interaction, and Modeling (ORIM) framework (Hannon, 1995). The Programme aims to improve parenting skills and the quality of the home learning environment in the early years and will target parents of three to four year old's specifically in this trial. It teaches parents about how children learn and develop, to help them build on what they are already doing at home to support their child's education (home learning environment). It contains comprehensive materials for practitioners which provide background theory and clear guidance for practice as well as resources for parents. The Programme is delivered to parents/carers together with their children.

For the purposes of this project, the Programme will consist of an initial home visit, and 20 one-hour sessions delivered over two terms, with groups of parents and children attending the sessions together in nursery settings. Peep will provide two days of training for nursery practitioners to help them work with parents. The training covers three elements: 1) the theory on which the Programme is based, and its existing evidence-base; 2) the Programme structure and content; 3) the skills and attributes needed to deliver the Programme, and the practicalities of Programme delivery, including a practice delivery session. The Programme and resources cover five topics: 1) social and emotional development; 2) communication and language; 3) early literacy; 4) early maths; and 5) health and physical development. Each session focuses on a particular topic related to children's development and includes discussion, songs and stories, as well as advice and approaches for parents to adopt at home. For this evaluation, the delivery will focus on social and emotional development, language and communication, and early literacy development, and additional mentoring support will be given to the practitioners to maintain quality (approximately one day a month).

The growing evidence base in support of the positive effects of the Peep LTP comprises research studies by the Universities of Oxford and Warwick (e.g. Evangelou et al., 2005). However, until now,

evaluations of the Peep Learning Together Programme have adopted a quasi-experimental design. This study therefore represents an opportunity to rigorously test the programme by conducting the first randomised controlled trial (RCT) evaluation of the Peep LTP.

### **Significance**

The role of the home environment and parents/carers is of vital importance during the first five years of life, if children are to flourish in the longer term (EIF, 2015; Asmussen et al., 2016). Much evidence exists to support the importance of the home learning environment for the academic and social outcomes of children (e.g. Foster et al., 2005; Melhuish et al., 2008; Kelly et al., 2007). Furthermore, the benefits of both home-based and school-based parental involvement, in terms of facilitating academic achievement for children of all ages, have been reported in several reviews and meta-analyses of the literature (Cox, 2005; Nye et al., 2006; Jeynes, 2007; Pomerantz, Moorman & Litwack 2007). The Peep Learning Together Programme (LTP) aims to bring together the influences of parent engagement and home learning environment in order to promote positive long-term academic and social change for children and their parents.

## **Methods**

### **Research questions**

The aim of the proposed evaluation is twofold:

- Through a cluster randomised controlled trial: to determine the impact of the Peep Learning Together Programme (LTP) on the outcomes of participating parents and their three to four year-old children.
- Through a process and implementation evaluation: to explore fidelity and the mechanisms through which any impact on outcomes is achieved.

Specifically, the research questions are:

Randomised controlled trial:

1. What is the impact of the Peep LTP on the communication, language and early literacy outcomes of three to four-year-old children (co-primary outcomes)?
2. What is the impact of the Peep LTP on other child related outcomes, including social and emotional development (secondary outcome)?
3. What is the impact of the Peep LTP on parent related outcomes including the home learning environment, parenting confidence and parenting stress (secondary outcomes)?
4. Is there a differential impact of the programme for children from different socio-economic backgrounds?

Process and implementation evaluation:

5. Was the intervention implemented with fidelity?
6. Is any variability in implementation associated with variability in outcomes?
7. Do the proposed mechanisms (e.g. the home learning environment, parental engagement) explain any link between the programme and child related primary outcomes (i.e. communication, language and early literacy skills)?
8. What were the facilitators and/or barriers to parental engagement with the programme?

## Design

The study will be a cluster randomised controlled trial and the unit of allocation will be the setting. This means that of all the Early Years (EY) settings recruited, half will be allocated to the intervention group and the remaining half will form the control group. The intervention group will be supported by Peep to deliver the Learning Together Programme to parents of three to four-year-old children for two terms. Using a clustered trial design ensures that the risk of contamination between the intervention and control settings is minimised.

The control group settings will not deliver the intervention during the period of the evaluation. Instead, they will continue with 'business as usual', which will be monitored and reported through the process evaluation (described below). To incentivise settings to take part in the study a payment of £500 will be made at the end of the study.

The trial is registered with ISRCTN, registration number ISRCTN64960433.

## Randomisation

EY settings will be allocated to either the intervention or control group by the evaluation team. All settings will be required to sign a Memorandum of Understanding (MoU), gain parental consent and complete baseline assessments prior to allocation, which will ideally minimise attrition. Since this is a clustered trial and in order to achieve comparable groups, minimisation (using the programme Minim) will be used to create groups that are balanced by level of deprivation, a covariate likely to be related to the primary outcome. Settings will also be allocated within region (an area to be defined by the project delivery team to facilitate the delivery of training). Minimisation as a method of allocation is a widely accepted alternative to simple or stratified randomisation (Altman & Bland, 2005; Treasure & MacRae, 1998).

## Participants

### *Early Years (EY) Settings*

Settings that meet the following criteria will be eligible for inclusion in the study:

1. Have not previously delivered the Peep Learning Together Programme
2. Are located within the 50% most disadvantaged Super Output Areas <sup>1</sup>(SOA)
3. Ideally have a good or outstanding Ofsted rating
4. Willing to be randomly assigned to condition at the level of the setting
5. Willing to engage with the intervention and implement it with parents and children
6. Able to recruit 10-12 families
7. Willing to administer pre-test measures and provide child background information to the evaluation team

Recruitment of EY settings will primarily be undertaken and managed by the project delivery team; however, the QUB evaluation team will support the recruitment process and provide advice as necessary for example, through joint recruitment events. Settings (and parents) will be oversampled in case of attrition and participating settings will be asked to sign a MoU which will provide details of the research and stipulate what participation will entail for the setting, parents and children.

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<sup>1</sup> Super Output Areas (SOAs) are used by the government for the collection and publication of neighbourhood (small area) statistics. They were originally developed to facilitate the calculation of the Indices of Deprivation (2004) and represent a set of geographical areas that are consistent in size whose boundaries remain fixed. SOAs have two tiers: lower layer SOAs have an average population of 1500 and middle layer SOAs have an average population of 7,200.

### *Parents and children*

The intervention will be targeted at parents of children aged three to four years in participating EY settings and all parents with a child of this age will be invited to take part in the study. Settings will personally approach all eligible parents in their settings to ask if they would like to take part in the study. Settings will provide parents with a written pack of information prepared by Peep and the evaluation team. Parents will be allowed a period of time to consider their participation and if they agree to take part, they will be asked to sign and return the consent form enclosed in their information pack.

### **Sample size calculations**

Effect sizes from previous quasi experimental evaluations of the Peep LTP have varied depending on the age of the children and the outcome in question. It is common for more rigorous designs to yield smaller effects and so, given this and the absence of any existing randomised controlled trials, the trial is powered to detect the smallest possible effect size. Thus, it is estimated that for the proposed trial to detect a minimum effect size of 0.2 of a standard deviation with approximately 80% power, a total sample size of 150 EY settings and a minimum of eight children and parents per setting (approximately 1200 children in total) is required.

These estimates have been calculated using Optimal Design (Version 3.01). They are based on a 2-level cluster design (where level two is the setting and level one is the child) and the following assumptions:

- Significance level ( $\alpha$ ) = 0.05
- Power = 80%
- Estimated intraclass correlation coefficient (ICC) = 0.10
- Estimated variance shared between pre and post-test scores ( $R^2$ ) = 0.25

Thus, to detect an effect of 0.2 with 80% power, the evaluation will need to include 150 settings and eight children within each setting. Efforts will be made to recruit a greater number parents (a minimum of 10 per setting) in order to allow for attrition.

### **Outcome Measures**

Table 1 outlines the instruments selected to measure language (primary outcome), early literacy development, social communication skills and social emotional development (secondary outcomes). The same data will be collected for children in both the control and intervention groups.

To maximise the efficiency of the trial the Ages and Stages Questionnaire (ASQ) -3 (communication) and Concepts About Print (CAP) (early literacy) will be used as pre-test measures and administered (via paper and pencil) by the EY settings prior to allocation. The hard copies of the tests will then be returned directly to the evaluation team for marking and data input.

Post-test child data on communication and early literacy development and language skills will be collected using the ASQ, CAP and the Clinical Evaluation of Language Fundamentals – Pre-school 2 (CELF 2). Social and emotional outcome data will be collected at post-test only using the Brief Early Years Skills and Support Index (BESSI).

Post-test data will be collected independently by the evaluation team in the EY setting using iPads (already owned by the research team). Each test record form will be translated to LIME survey or Google forms format and will be completed by the researcher as each child is tested. Data will be simultaneously uploaded to secure cloud storage using a Mifi device. This has the advantage of reducing post-test data collation and entry time and ensuring instant, secure storage of data. The research team (Dunne) has recently collected survey data from ninety Northern Ireland schools using this method..

**Table 1 Child outcomes and measures**

Child Outcomes	Measure
<b>Primary outcome</b>	
Language skills	<p><b>Clinical Evaluation of Language Fundamentals®-Preschool-2 (CELF®-Preschool-2)</b> (Semel, Wiig, &amp; Secord, 2006)</p> <p>Suitable for children aged 3 to 6, CELF-Preschool 2UK measures a range of expressive and receptive language skills in young children. It includes the following subscales:</p> <ul style="list-style-type: none"> <li>• Sentence Structure</li> <li>• Word Structure</li> <li>• Expressive Vocabulary</li> <li>• Concepts and Following Directions</li> <li>• Recalling Sentences</li> <li>• Basic Concepts</li> <li>• Word Classes</li> </ul> <p><i>(individual test, 15-20 minutes)</i></p>
<b>Secondary outcomes</b>	
Early literacy development	<p><b>Concepts about Print (CAP) (Clay 2000)</b> assesses young children’s knowledge of the conventions of print: what he or she needs to know about books, letters, words, directionality and other skills, in order to be able to read. Children are asked to identify the front and back cover of a book, use their finger to show directionality, identify a capital and lowercase letter, point to the first and last words on the page and provide the name or function of punctuation marks. CAP is described as a ‘fun task that can be used with non-readers as well as readers’. CAP scores range from 0-22.</p> <p><i>(individual test, 5-10 minutes)</i></p>
Social and emotional learning and communication	<p><b>The Ages &amp; Stages Questionnaires®, Third Edition (ASQ-3™) (Squires &amp; Bricker, 2009).</b></p> <p>The ASQ aims to measure development on communication, gross motor, fine motor, problem solving, and personal-social domains from 1-66 months of age <i>(individual test, 10-15 minutes)</i>.</p>
Social and emotional	<p>Brief Early Years Skills and Support Index (BESSI) - a one page questionnaire including assessments of child support – the home learning environment - in addition to the traditional assessments of cognitive and behavioural development.</p>

To minimise research burden, only post-test data will be collected on the secondary outcomes from parents, which include: the home learning environment and parenting confidence. To maximise return, parents will be offered the opportunity to complete the questionnaire online, by post or over the telephone. In addition, parents who complete all elements of the data collection will be given a £15 voucher at the end of the evaluation. Table 2 outlines the proposed parent-related outcomes and measures. Additionally, demographic data will be collected at this stage on parental education, parental occupation, socio economic status and ethnicity.

**Table 2: Parent outcomes and measures**

Parent Outcome	Measure
Quality of the home learning environment	<p><b><i>The Home Learning Environment (HLE) (Sylva et al. 2004).</i></b></p> <p>A 7-item instrument designed to measure parental involvement within certain activities in the home, including reading to children, teaching nursery rhymes and songs, playing with letters and numbers. The HLE is scored on a Likert Scale from 1-5, with 1 indicating that the activity ‘never happens’; to 5 meaning that it ‘happens every/most days’. Scores range from 7 – 35 with a higher score indicating a higher level of home learning activity. <i>(Individual Test, 5 minutes)</i></p>
Parenting skills (confidence)	<p><b><i>Tool to Measure Parental Self Efficacy (TOPSE) (Kendall and Bloomfield, 2005)</i></b></p> <p>The TOPSE is used to measure changes in parenting self-efficacy or confidence. It can be used to help evaluate parenting programmes and identify specific problem areas parents may be experiencing. The following domains will be measured: Play and enjoyment, Empathy and understanding, Self-acceptance, Learning and knowledge. <i>(Individual Test, 5-10 minutes)</i></p>

### **Analysis plan**

Analysis will be conducted using Stata version 14 (Stata Corporation, College Station, Texas, USA), on an intention-to-treat basis in the first instance. The initial characteristics of the intervention and control groups will be compared at baseline in relation to their core characteristics e.g. gender, socio economic status, ethnicity and mean scores on the main outcomes.

### **Main analysis**

The main effects of the intervention will be estimated using multilevel modelling to take account of the clustered nature of the data and a series of models will be estimated for each outcome (where pupil is level 1 and setting is level 2). Firstly, a simple analysis will be conducted: the relevant outcome measure at post-test forming the dependent variable and the independent variables including a dummy variable representing whether the child was a member of the intervention or control group (coded ‘1’ and ‘0’ respectively) and children’s baseline scores for the outcome variable in question. Then, a series of child level and setting level characteristics will be added as covariates to control for any baseline differences in the variables. A measure of deprivation and region will also be included in the analysis as these two factors will have been included in the allocation process. Standard errors will be bootstrapped if necessary as a test of robustness.

The main focus for the analysis will be the estimated coefficient associated with the dummy variable that represented the difference in mean scores on the respective outcome variable between the



intervention and control groups, once baseline scores and other covariates are controlled for. This coefficient will be used to estimate the effect size of the programme in relation to the respective outcome variable as the standardised mean difference between the two groups at post-test (Hedges' *g*).

#### *Sub group analysis*

To estimate the effect of the intervention for children from more deprived backgrounds the main analysis will be repeated on a subsample of the data identified through the English Index of Multiple Deprivation (or eligibility for Free School Meals, if available). Further sub group analysis will be conducted to determine whether the programme is more effective for children for whom English is an additional language (EAL) as well as for children who received the programme as it was intended to be delivered i.e. an on-treatment analysis. For the purpose of this evaluation 'on treatment' is defined as attending 14 of the 20 programme sessions.

#### ***Implementation and process evaluation methods***

##### *Fidelity*

In order to address the research questions stated above, an online survey of all intervention settings will be conducted to explore issues related to acceptability, parental engagement and barriers and facilitators of implementation. Intervention settings will be asked to complete a fidelity log detailing their weekly implementation of the programme. This fidelity log will be designed in close consultation with Peeples to capture relevant information for both the evaluation and project delivery teams. This information will be used to identify a small number of settings (*n*=6) who demonstrate high, medium and low fidelity and will be asked by the evaluation team to take part in a more in-depth case study, including interviews with parents, practitioners, setting leaders and members of the project delivery team. The evaluation team will attend the training provided by Peeples to the settings in order to inform the development of the instruments and questionnaire schedules used to measure fidelity.

##### *Parent engagement*

Parental engagement will be explored in two ways: quantitatively by incorporating additional questions into the suite of parental measures used in the RCT and qualitatively through interviews conducted as part of the case studies mentioned above. Engagement will be explored from the perspective of why parents engaged as well as how they engaged. This will include exploring parents' motivation, attendance, satisfaction, practical implementation of what has been learned, perceived value and outcomes of the programme as well as barriers and facilitators to engagement. Parents who took part in the programme as well as those who had the opportunity to take part but chose not to, will be interviewed.

##### *Counterfactual*

Control settings will also complete an online survey in order to gain a more in-depth understanding of the counterfactual and the 'business as usual' condition. Parents in both the intervention and control conditions will be asked what other parenting support they availed of during the period of the evaluation. All settings will also be asked what additional parenting support and/or programmes they provided both before and after the trial.

## **Costs**

The marginal financial cost of implementing the intervention will be calculated based on data collected directly from Peeple and EY settings through direct communication and the process evaluation survey. The total cost of delivering the programme will be calculated from the perspective of the setting and will be reported as an estimate of the cost per child. Additionally, both the cumulative and average cost per child (per year) will be estimated over a three-year period to take into account additional start-up costs incurred in the first year but not subsequent delivery years.

## **Ethics and registration**

All research will be conducted according to the School of Social Sciences, Education and Social Work at Queen's University Belfast's ethical guidelines. Ethical approval will be obtained from the School of Social Sciences, Education and Social Work's Research and Ethics Committee prior to any data collection to be undertaken by the evaluation team.

The consent of the EY settings to take part in the study must be secured prior to the allocation process. Once setting level consent has been obtained, a letter outlining the research and providing parents with the opportunity to withdraw themselves and their child from the study will be sent to the parent(s) of all eligible children aged three to four years. This consent letter will make it clear that if parents consent to take part in the study, their child's named data will be matched with the National Pupil Database in the future and shared with Queen's University Belfast, the Education Endowment Foundation, EEF's data contractor FFT Education and the UK Data Archive for research purposes. Parents will be reassured that their name, their child's name or the name of the early years setting will not be used in any report arising from the research. Assuming that all the settings recruited are working within the Early Years Foundation Framework, each child should already be allocated a Unique Pupil Number (UPN). Collecting this UPN as part of the evaluation and obtaining the appropriate parental consent, will enable the long term outcomes of participating children to be tracked via the National Pupil Database (NPD) throughout their school career. Verbal consent will be obtained from participating children prior to any data being collected either by the setting or the evaluation team.

The trial will be registered with the ISRCTN registry and the protocol will be published as a peer reviewed journal article.

## **Personnel**

### **QUB evaluation team**

Dr Sarah Miller will have responsibility for overseeing all aspects of the design, allocation and the analysis and write up of the data. She is a psychologist with a strong quantitative and statistical background comprising considerable experience conducting complex multivariate analyses (including hierarchical linear modelling). Her experience of supervising and conducting research projects spans cluster randomised controlled trials, systematic reviews and large-scale surveys. Currently she is Principal or Co-Investigator on three large-scale randomised controlled trials in Education and is undertaking a number of systematic reviews in related areas.

Dr Laura Dunne has much experience of trial management and expertise in qualitative and quantitative methodologies. She will coordinate researchers, collation of data and contribute to report writing. Laura has considerable experience collecting cognitive and non-cognitive outcome

data with young children using appropriate measures, measuring literacy outcomes in young children, observing and assessing the home learning environment, identifying and measuring relevant parent outcomes and evaluating programmes located in the school setting.

### **Project delivery team**

Dr Sally Smith is an educational researcher and is currently the Chief Executive Office of Peeple. Sally will have overall responsibility for delivery of the project and will line manage the Project Manager, Susannah Chambers.

Susannah Chambers has recently joined Peeple as the Project Manager. She has extensive project management experience from her role as policy lead for Family Learning, Community Learning and Intergenerational Learning at the National Institute of Adult Continuing Education (NIACE). Prior to working for NIACE, Susannah was the Family Learning Manager with Nottinghamshire Local Authority, a post which included overall responsibility for all delivery of the Peep Learning Together Programme in the County. Susannah will manage the mentors and the project administrator.

Lisa Clissett, Clare Lawrence, Debbie Rudman, Gillian Smith and Alison Tebbs are all experienced Peep practitioners and trainers. They are joining the team as mentors and will have responsibility for training setting staff and providing mentoring to support with parental recruitment and retainment and the quality of Programme delivery. Helen Stroudley, a Delivery Manager from Peeple, will provide ongoing support and consultation to the Project Manager and mentors. Helen is an experience Peep Practitioner and trainer with particular knowledge of speech and language development.

## **Risks**

### **Risk analysis and counter measures**

A risk analysis of the School of Social Sciences, Education and Social Work and CESI activity has been undertaken. This is presented below by means of establishing the potential risks to the funder and the controls and contingency measures that are in place to minimise these risks. This adds security to the funding body and peace of mind that the proposal will be delivered on specification and on time.

<b>Risk</b>	<b>Assessment</b>	<b>Countermeasures and contingency plan</b>
<b>1. Settings decide they no longer want to participate following randomisation</b>	<b><i>Likelihood: Low</i></b> <b><i>Impact: High</i></b>	A Memorandum of Understanding will be established between EY settings and the research team prior to participation making clear the responsibilities and rights of settings. In addition pre-test data collection will be conducted prior to randomisation to ensure the commitment of settings.
<b>2. The project delivery team and CESI have differences of opinion on trial design, measures or approach to analysis</b>	<b><i>Likelihood: Medium</i></b> <b><i>Impact: Medium</i></b>	Early project initiation meetings with the project delivery and evaluation teams to finalise project design and agree measures.  CESI staff have experience of working closely with programme developers in a flexible way while maintaining the robustness of the study design and independence of evaluation.
<b>3. Differential attrition from control and intervention groups</b>	<b><i>Likelihood: Low</i></b> <b><i>Impact: Low</i></b>	Outcome data will be collected directly from settings. With a well-designed trial of this size we would expect some attrition but with this sample size and the proposed data collection methods, this should be evenly matched between control and intervention schools.  Imputation methods will be used if required.
<b>4. Lack of study power</b>	<b><i>Likelihood: Low</i></b> <b><i>Impact: Low</i></b>	Some smaller observed effect sizes may not be significant.  This will be dealt with in the interpretation of the impact results.
<b>5. Data protection and ethics</b>	<b><i>Likelihood: Low</i></b> <b><i>Impact: High</i></b>	Robust data protection and ethical procedures are in place at CESI. Data sharing protocols will be established.
<b>6. Staffing issues: staff leaving or unavailable over extended duration of project</b>	<b><i>Likelihood: Medium</i></b> <b><i>Impact: High.</i></b>	Staff turnover in the CESI is generally low however succession planning has been built into team roles. Large CESI team can absorb problems in the short-term. Sufficient numbers of experienced staff in senior roles to cover others in the team.

## Data Protection

All information collected as part of the research will be treated confidentially and neither individual nor school names will be included in resulting publications or presentations. At all times, Data Protection Guidelines will be adhered to. Data will be handled in line with Queen's University Belfast guidance, which state that personal data must be destroyed on completion of the project, and research data retained for a minimum of five years. For the duration of the research, paper records containing personal data will be held in locked filing cabinets in a room on QUB premises, accessible only by the research team, and securely destroyed (by shredding) thereafter. All research participants will be assigned an identification (ID) number, and both paper and electronic files with research data will be link-coded so that names and other key identifiers are held in a separate file. Data held electronically will be stored securely in password protected folders, on encrypted computers accessible by the research team only.

For the purpose of the study, data collected will be linked with the National Pupil Database (held by the Department for Education), other official records, and shared with the evaluation team at CESI, the Department for Education, Education Endowment Foundation (EEF), EEF's data contractor FFT Education and in an anonymised form to the UK Data Archive.

## Timeline

Date	Activity
January 2017	Evaluation design (QUB)
January 2017	Ethical approval (QUB)
February – May 2017	Recruitment of settings (Peeples)
October – November 2017	Pre-test data collection (QUB)
November 2017	Randomisation of settings (QUB)
January – June 2018	Programme delivery (Peeples)
January – March 2018	Input of pre-test data (QUB)
January – March 2018	Preparation for post-test data collection (QUB)
January – February 2018	Training fieldworkers (QUB)
May – June 2018	Post-test data collection of child outcomes (QUB)
May – June 2018	Post-test data collection of parent outcomes (QUB)
July – August 2018	Quantitative data processing (QUB)
September – October 2018	Trial data analysis (QUB)
April – May 2018	Interviews with setting leaders and parents (QUB)
March 2018	Survey of settings (QUB)
July – August 2018	Analysis (QUB)
December 2018	Final report (QUB)

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